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EXHIBIT A

DICTIONARY OF COMMUNICATIONS TECHNOLOGY

Terms, Definitions and Abbreviations Third Edition

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process mode

process mode The mode in which sysout data exists and is to be processed by a JES output device. There are two IBM-defined process modes—line mode and page mode.

processing, batch A method of computer operation in which a number of similar input items are accumulated and grouped for processing.

processing, in-line The processing of transactions as they occur, with no preliminary editing or sorting of them before they enter the system.

Processor-Direct Slot (PDS) The name used to reference a general-purpose expansion slot for Macintosh computers. A PDS card is connected directly to the Macintosh processor instead of the computer's bus.

Procomm A popular shareware communications program from Datastorm Technologies, Inc. of Columbia, MO designed for use on the IBM PC and compatible computers.

Prodigy A videotext service provided by a joint venture of Sears, Roebuck and Co. and IBM. The initial name for this service was Trintex.

Professional Office System (PROFS) An IBM office automation software package now known as Office Vision.

profile In packet-switched networks, refers to a set of parameter values, such as for a terminal, which can be defined and stored; the parameters can then be recalled and used as a group by identifying and selecting the appropriate profile.

PROFS PROfessional OFFice System.

program A sequence of step-by-step instructions that tell a computer what to do.

Program Access (PA) key On a display device keyboard, a key that produces a call to a program that performs display operations.

Program Function (PF) key On a display device keyboard, a key that passes a signal to a program to call for a particular display operation.

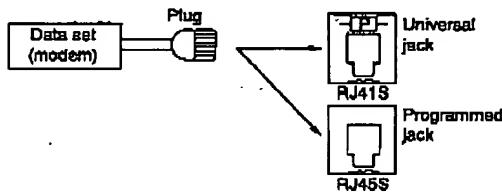
Program Information File (PIF) 1. A file containing information that IBM's "Top View" requires to allow the application to process properly in the "Top View" environment. 2. System information files.

program operator In IBM's ACF/VTAM, an application program that is authorized to issue ACF/VTAM operator commands and receive ACF/VTAM operator awareness messages.

Program Temporary Fix (PTF) A patch sent by the vendor to fix a bug, or bugs, in a software package.

programmable arrangement A connection arrangement used to connect FCC registered equipment to the DDD network. This arrangement can employ either of two telephone company supplied data jacks—USOC RJ45S (programmable) or USOC RJ41S (universal). With this arrangement, the telephone company measures signal loss over the local loop between the subscriber's site and the central office. A "programming" resistor is selected and installed in the data jack to enable the communication equipment to transmit at a level that delivers the maximum -12 dBm signal at the central office.

programmable jack A jack that contains a resistor whose value can be changed to control the output level of a modem to meet a required signal loss level.



Programmable Read-Only Memory (PROM) Permanently stored data in a nonvolatile semiconductor device. The semiconductor is electrically programmed by the equipment manufacturer and can only be changed with special equipment which erases the previous program.

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adapters are
d the difficulty
An error on a
work's perfor-
its reliability.

If the number of soft errors reaches the ring error limit, reliability is affected.

soft font Fonts that are stored on disk and loaded into a printer's memory for use.

soft link An alternate name for an object or directory in a namespace. Soft links allow users to view names as forming an acyclic directed graph rather than a pure tree.

Soft-Switch Central A product of Soft-Switch, Inc. of Wayne, PA, which enables over 40 proprietary electronic mail systems to be interconnected.

soft turn-off A soft carrier frequency transmitted by a modem operating on the switched telephone network to prevent transients at the end of a message being misinterpreted as spurious space signals at the remote modem.

softcopy An electronic document that is stored in a computer.

Softerm PC A communications program marketed by Softronics, Inc., for use on the IBM PC and compatible personal computers. The program is known for its inclusion of over 50 exact terminal emulations and seven file transfer protocols.

software A computer program or set of computer programs held in some kind of storage medium and loaded into read/write memory (RAM) for execution.

software defined network A network constructed by a long distance carrier, in which a user is given a means to define a "virtual network" that operates in some respects as a private network, yet is assembled from conventional switching and trunking components of the carrier's public switched network.

Software Defined Network Services (SDNS) An AT&T provided service that gives customers control of their own special call-routing programs stored in AT&T's network. This will provide fast and cost-effective network flexibility.

software demultiplexing In multiplexer applications, the connection of a computer directly to a multiplexer trunk without an intervening multiplexer to permit the remotely multiplexed transmission to be demultiplexed by software running within the computer.

software engineering A broadly defined discipline that integrates the many aspects of programming, from writing code to meeting budgets, in order to produce affordable software that works.

software maintenance The continual improvements and changes required to keep programs up to date and working properly.

SO Shift-Out

SOH Start Of Header

solar array A power generation method using solar cells.

solar outage A condition in which the high radiated noise level of the sun can be many times stronger than a transmitted signal. In satellite transmission a solar outage occurs when the sun passes behind or near a satellite and within the field of view of an antenna. Satellite solar outages are predictable and occur twice a year.

solar panel A device on satellites that converts solar energy into electrical energy.

solder A metal or metallic alloy used, when melted, to join two or more metallic surfaces.

solicited message In IBM's ACF/VTAM, a response from VTAM to a command entered by a program operator.

solid-state component A component whose operation depends on control of electric or magnetic phenomena in solids such as a transistor, crystal diode or a ferrite core.

SOM Start Of Message

SONET Synchronous Optical NETwork

SOP Standing Operating Procedure

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